



## CHAPTER 2: CIRCULATION AND PARKING PLAN

### Introduction

Circulation and parking around the Square have long been recognized and debated as a pressing issue for the thriving and economically successful Downtown. The challenge is to create a plan that balances the need for good traffic operations along the two state trunklines, Joliet Street (Route 231) and Main Street (Route 55), with the needs of businesses and pedestrians for convenient parking and a pleasant place to visit. This chapter includes the following:

- Key Findings of the research (more detail is provided in the appendix).
- Circulation and Parking Objectives to provide a foundation for the preferred circulation and parking plan.
- Alternatives that were considered, but not selected.
- A description of the Preferred Alternative Plan.
- A description of Circulation and Parking Recommendations.

### Key Findings

Research of traffic counts, accident data, parking surveys, parking regulations, and empirical data, revealed the following prevalent issues. Refer to Appendix A for circulation data and Appendix B for parking data.

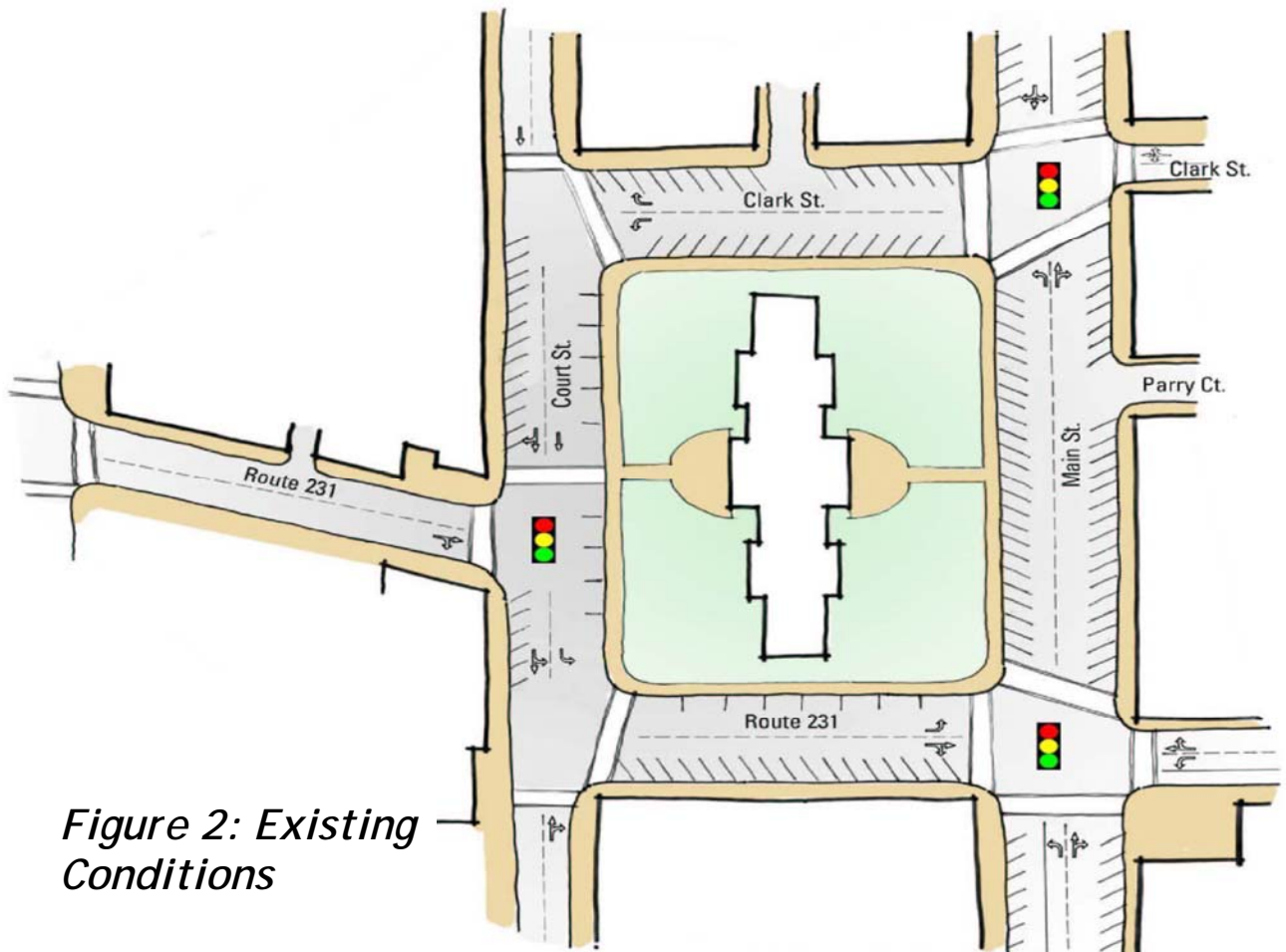
### Vehicular Circulation

- The state trunklines of Joliet Street (Route 231) and Main Street (Route 55) have significant volumes of daily truck traffic that are higher than a typical downtown.
- Changes to these streets require approval by INDOT because the state has jurisdiction of the right-of-way.
- The presence of trucks results in negative impacts to businesses such as noise, property damage, and decrease in pedestrian comfort.
- Today's longer trucks require a significant pavement area to turn at intersections and conduct other maneuvers.
- There is currently a Level of Service (LOS) 'F' at the intersection of Joliet and Main Street (Route 55)s, which means



heavy congestion and long delays for certain vehicular movements.

- Traffic counts around the Square range between 11,000 and 13,250 vehicles per day; not an unusual number for a downtown.
- There are a high number of accidents related to parking maneuvers on the Square and at the intersections.
- Frequent illegal or unsafe vehicle maneuvers occur around the Square due to confusion and frustration with one-way circulation, restricted turns, and poor signage.
- Signal timing at signalized intersections is not well-coordinated with actual traffic flow.



*Figure 2: Existing Conditions*



### **Pedestrian Circulation**

- The width of the streets and pavement, and the relatively high speeds of some vehicles create an unwelcoming and potentially unsafe environment for pedestrians when crossing the streets in Downtown.
- Vehicles are given priority at intersections around the Square.
- Exclusive pedestrian connections between nearby public parking areas and the Square are not well defined and lack amenities.

### **Parking**

- Parking around the Square is near or at capacity multiple times throughout the week.
- There is healthy or ample parking capacity in outlying (not directly in the Square) public parking lots and on-street parking areas throughout the week.
- Outlying parking areas are not well used due to a lack of: directional signs, awareness by the public and clear pedestrian connections.
- Many cars park beyond the 2 hour limit around the Square (many are parked for 3-10 hrs). This very low turnover rate indicates that business owners and/or employees are parking in these prime customer spaces. The lack of available convenient on-street parking in front of businesses, likely represents a significant loss of sales to businesses.

### **Circulation and Parking Objectives**

To address those issues, the following priority objectives were established by the Steering Committee to serve as a foundation in selection of the Preferred Alternative Plan.

- Retain and increase on-street parking near the Square.
- Improve walkability of Downtown.
- Reduce accidents and other traffic conflicts.
- Improve traffic flow within and through Downtown.



## Alternatives Considered

Three alternatives and a “Do Nothing” option were considered. The “Do Nothing” alternative is used as a benchmark to evaluate the pros and cons of each alternative. Since the “Do Nothing” alternative is the existing condition, no further description is provided. After rigorous assessment and deliberation with the Steering Committee, City staff, business owners, and other members of the public that attended a public workshop, a Preferred Alternative emerged. Therefore, Alternative One and Two are briefly described followed by a more detailed discussion of the Preferred Alternative. Other design solutions are discussed in separate sections.

**Alternative One:** The intent of Alternative One is to maintain the existing traffic flow around the Square and only impose simple, design changes that will improve the streetscape and pedestrian environment. Because it is a low impact solution, it does not fully address the core issues of safety, truck traffic impacts, and the goal of increased parking on the Square. Therefore, Alternative One is seen as a short term solution but it is not a desirable long term solution. Alternative One includes the following elements:

- Maintain existing road alignment and one-way flow around the Square.
- Convert Court Street to one-way circulation flowing away from the Square north and south. Converting the street to one-way allows space for on-street parking. In addition, the stop bar at the north end should be moved closer to the square to improve visibility for approaching vehicles and pedestrians.
- Convert Clark Street east of the square to one-way movement flowing away from the square or move stop bar closer to the intersection to improve visibility for vehicles.
- Consider restricting Parry Court to pedestrians-only.
- Upgrade directional signage to minimize confusion for vehicles driving around the Square.
- Provide pedestrian enhancements and traffic calming techniques such as improved crosswalks, wider sidewalks, and curb extensions.
- Consider changing existing angle parking to reverse angle parking (see page 17).

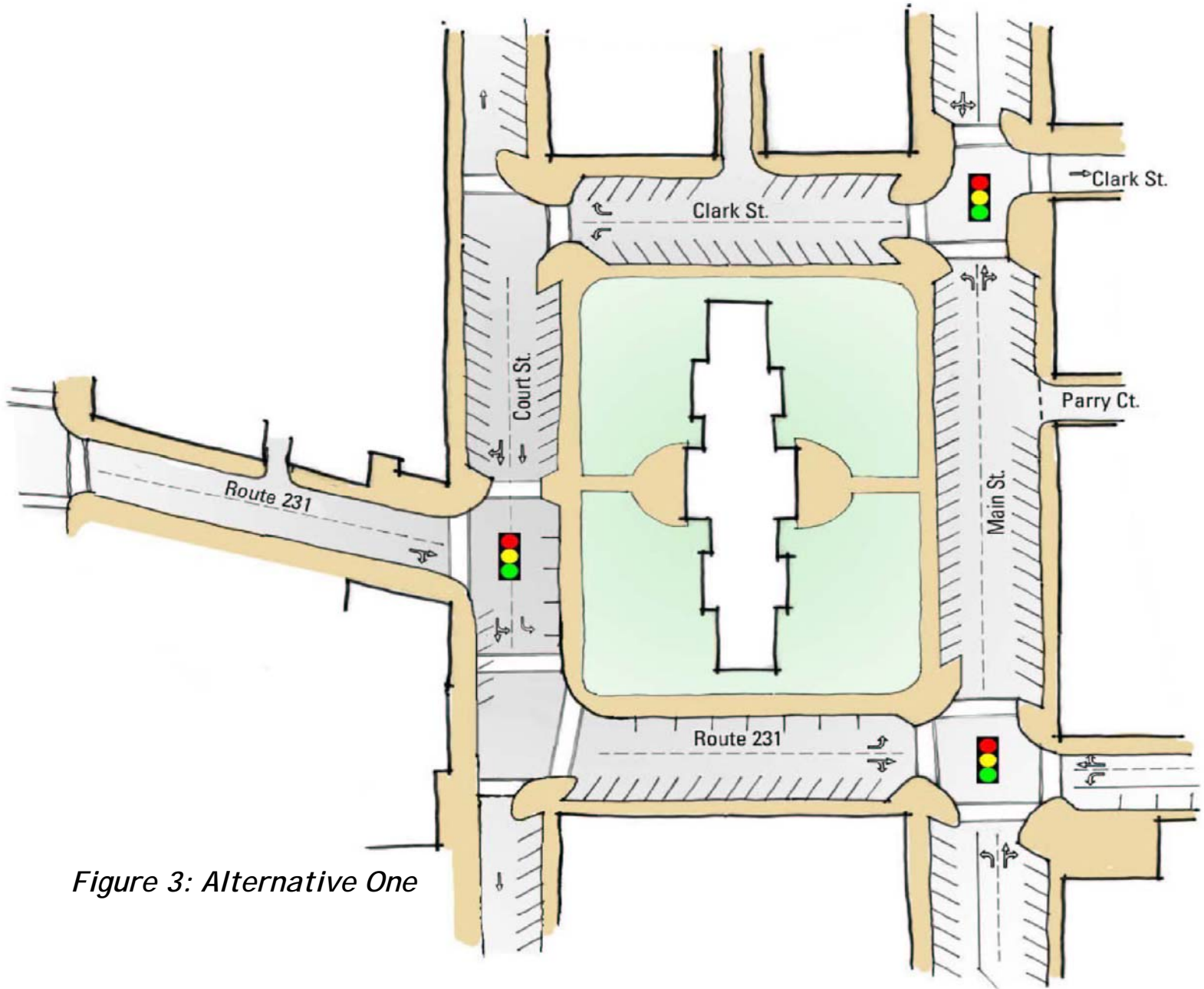
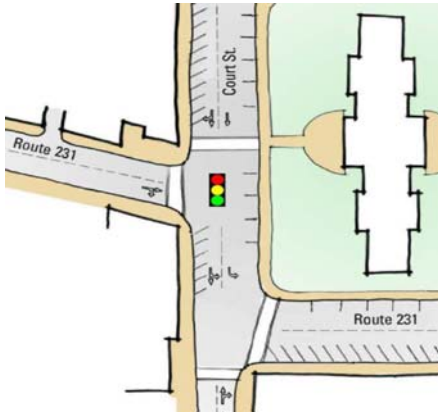
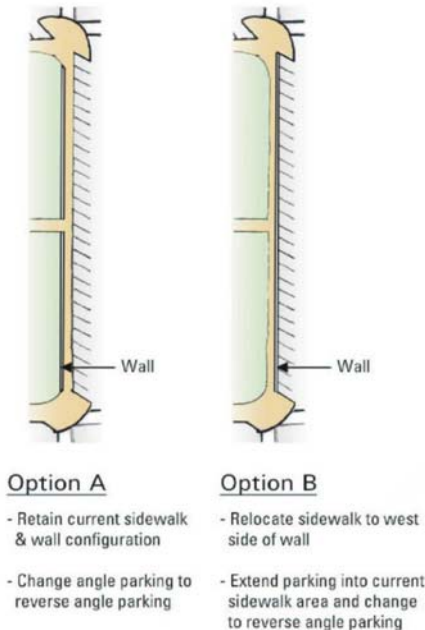


Figure 3: Alternative One



*Figure 4: Joliet St (Route 231) and Court St. Offset*

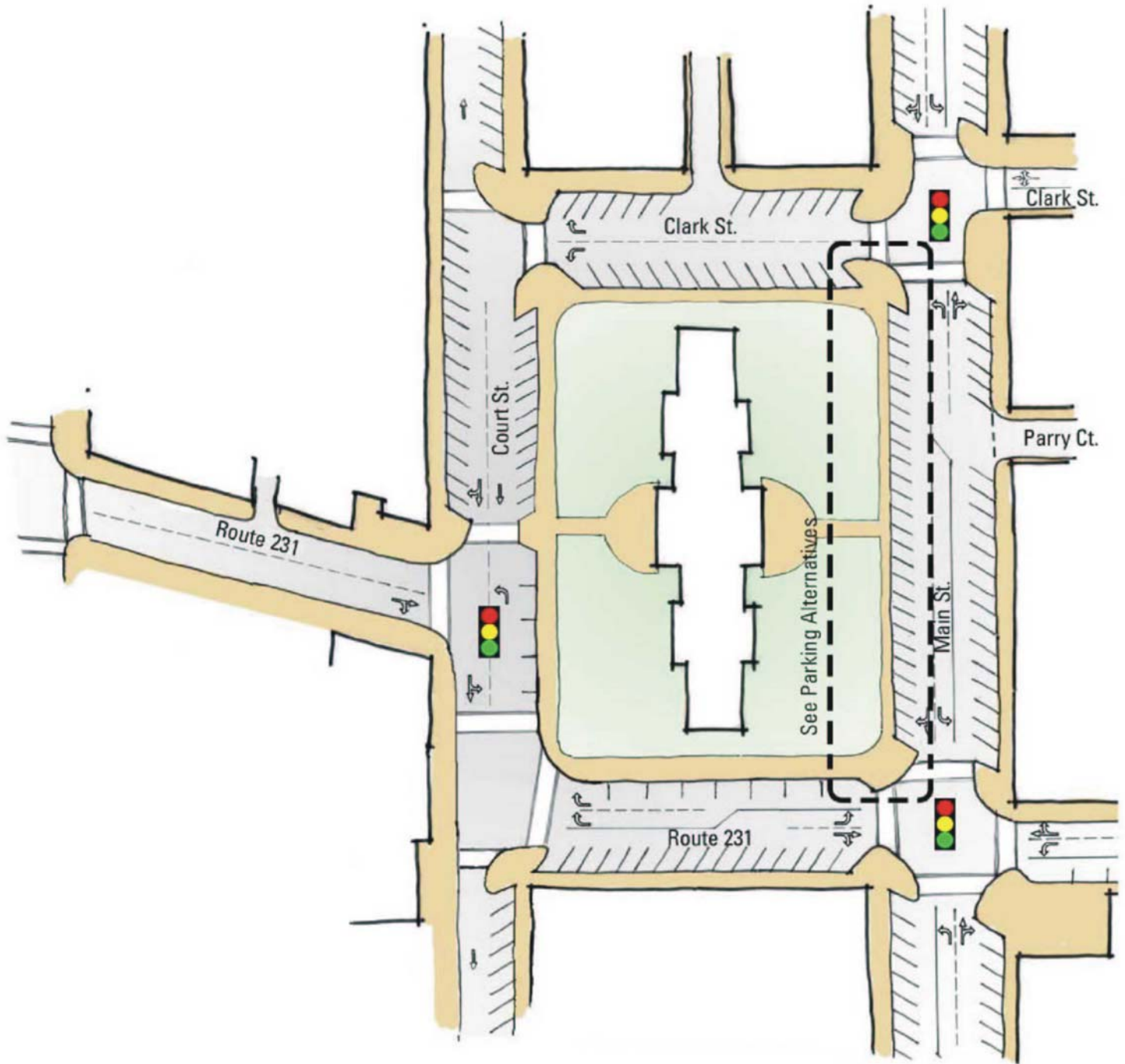


*Figure 5: Main Street (Route 55) Parking Options*

**Alternative Two:** The intent of Alternative Two is to maintain the existing road alignment but convert traffic flow from one-way to two-way on Main Street (Route 55) and Joliet Street (Route 231) around the Square. While this alternative begins to address the core issues of safety and truck traffic, there are still complications created by the offset Joliet Street (Route 231) and Court Street intersection. For example, on-street parking in this area would likely need to be eliminated on the Square to accommodate space for today's longer trucks. More specifically, Alternative Two includes the following elements:

- Convert Main Street (Route 55) and Joliet Street (Route 231) from one-way traffic flow to two-way traffic flow on the Square and maintain one-way traffic flow on Clark Street and Court Street around the Square.
- Accommodate left turns at Joliet Street (Route 231) and Main Street (Route 55) intersection by adding left turn lanes.
- Prohibit left turns from westbound Joliet Street (Route 231) onto southbound Court Street.
- Consider restricting Parry Court to pedestrians-only.
- Convert Court Street to one-way, flowing away from the Square and add 10-14 additional angled on-street parking spaces.
- Consider changing angle parking to reverse angle parking (see page 17).
- May lose parallel spaces on Court Street at the intersection with Joliet Street (Route 231) but could be replaced by angled parking spaces on the west side of the Square near Clark Street.
- Alternative could result in a loss of about 15 parking spaces around the Square depending on the possibility of angle parking on the west side of Main Street (Route 55) (see Figure 5).
- Provide pedestrian enhancements and traffic calming such as improved crosswalks, wider sidewalks, and curb extensions.
- Upgrade directional signage around the Square to minimize confusion.





*Figure 6: Alternative Two*



## Preferred Alternative Plan

The preferred alternative was chosen because it best addressed all the primary plan objectives. The elements of this alternative are described in more detail in the following sections.

### Circulation Recommendations

The foundation of this effort was to resolve circulation issues and determine the most desirable and effective circulation plan for Downtown. Once the circulation pattern was established, parking and design recommendations fell into place. The key elements of the circulation plan are outlined in this section.

**One-Way/Two-Way Traffic Flow:** Circulation around the Square has been one-way since the 1970s. There have been positive and negative impacts as a result of this pattern. During this planning process, it became evident to the City and business operators the negative impacts outweigh the positives ones. Therefore the preferred alternative recommends the following changes to traffic flow:

- Convert Joliet Street (Route 231) and Main Street (Route 55) from one-way to two-way around the Square.
- Maintain Court Street and Clark Street around the Square as one-way circulation.
- Convert Court Street north of the Square to one-way movement flowing away from the Square for approximately 150 feet.
- Add left turn lanes and signals as needed at the Joliet Street (Route 231) and Main Street (Route 55) intersection and the Joliet Street (Route 231) and Court Street intersection.
- Lane widths may be reduced, such as 11 feet, to be more pedestrian-friendly and retain sufficient width for parking. This may also slightly decrease vehicle speeds, which is also desirable.

As a result of these changes, through-traffic can directly pass through Downtown without further disruption around the Square. For those using these routes to visit Downtown, ease of circulation to find convenient parking and destinations will be improved.

**Joliet Street (Route 231) Re-Alignment:** As noted in the discussion for Alternative Two, the existing intersection of Joliet Street (Route 231) and Court Street is offset, creating two three-way intersections that are complicated to navigate and difficult for trucks to maneuver. Consistent with the City's Master Plan, it is





recommended that Joliet Street (Route 231) be re-aligned to create one standard, four-way intersection with Court Street and eliminate the offset. From the intersection, Joliet Street (Route 231) would curve northwest to link up with the existing intersection with West Street. To accomplish this recommendation, the following is recommended:

- Acquisition of land and removal of an existing structure located at the terminus of the existing three-way intersection.
- Conversion of the existing Joliet Street (Route 231) to a parking area that can also be used for outdoor civic events and gatherings.
- In-fill development opportunities along new street alignment.
- Additional on-street parking opportunities on both streets in comparison to existing conditions.

**Traffic Control:** Several changes to traffic control are recommended to accommodate the new alignment and two-way traffic flows.

- Relocate the existing traffic signal to the newly aligned intersection.
- Improve signal timing, especially at Main Street (Route 55) and Joliet Street (Route 231) to improve the movement of traffic through the intersections but also give greater priority to pedestrians.
- Improve signage for State Route designations to reduce confusion.
- Provide clear turning movement pavement markings at signalized intersections to improve guidance and discipline in making turning movements.
- Left turns from Main Street (Route 55) onto Joliet Street (Route 231) may need to be prohibited upon further study.

**Pedestrian Circulation:** The traffic engineering profession has undergone quite a change in philosophy toward a balanced approach between traffic and pedestrians, especially in downtowns. This philosophy was incorporated into this plan and will result in a greater balance between parking, vehicles, and pedestrians.

During the public workshop there was some apprehension to making Joliet Street (Route 231) more direct because it may encourage higher volumes and higher speeds for truck traffic. However, with thoughtful design this change will actually improve the pedestrian environment. Specifically, the pedestrian environment will benefit from the reduced confusion and lower traffic volumes on the other sides of the Square. Generally, the following changes to pedestrian



circulation are recommended but refer to Chapter 3: Urban Design Plan for more detailed design recommendations.

- Lower traffic volumes and less truck traffic on Court Street and Clark Street creates the opportunity for reducing the width of travel lanes on these streets and increasing the width of sidewalks at the storefronts along Clark Street and Court Street.
- As part of increasing the sidewalk widths, it is recommended that larger sidewalk areas be provided at street corners, also called bump-outs, to allow for additional pedestrian gatherings.
- Closing Parry Court to vehicle traffic and leaving it available for only pedestrian traffic is recommended for consideration.
- For all pedestrian crossing locations, improvements are recommended that alert drivers of the crosswalk and that are more easily identified by pedestrians. More specifically, effective techniques should be considered such as wide pavement striping, a change in pavement, improved lighting, and pedestrian crossing signs with letters and coloring that is easily seen by drivers and pedestrians.

### Parking Recommendations

As a result of the recommended circulation changes, parking opportunities are created. This occurs in the form of new on-street parking areas, improvements to existing public lots, and new locations for public parking lots. It is estimated that parking around the Square will increase with the addition of the new parking and the additional angled parking on Court Street. Since these are conceptual recommendations, the specific dimensions and exact parking counts will need to be finalized as part of the next phase of this project. Specifically, coordination with INDOT will be necessary because of their jurisdiction over Joliet Street (Route 231) and Main Street (Route 55).

**On-Street Parking:** To maximize parking on the Square, on-street angled parking is incorporated wherever possible. It is further recommended that the City explore the feasibility of converting existing angled parking into reverse angled parking. More discussion on reverse angled parking is provided at the end of this chapter.

Regardless of whether the parking is angled or reverse angled, there is the potential to accommodate parking along both sides of Main Street (Route 55), Court Street, Clark Street, and on the south side of Joliet Street (Route 231) around the Square. In addition, angled parking spaces can be added on Court Street both north and



south of the square. Angled parking spaces will continue on Main Street (Route 55) north and south of the Square.

Due to the need to include left turn lanes on Main Street (Route 55), there may not be enough width to maintain the existing angled spaces on the west side of the street. To gain additional width and preserve the angled parking spaces, there are two options proposed involving a narrower sidewalk or relocating the sidewalk to the opposite side of the concrete wall that defines the boundary of the Historic Courthouse Site. (See Figure 5 for an illustration.)

While angled parking is preferred, existing on-street parallel parking on the north side of Joliet Street (Route 231) will remain. There is not adequate width to accommodate angled parking on both sides of the street, two travel lanes, and left turn lanes.



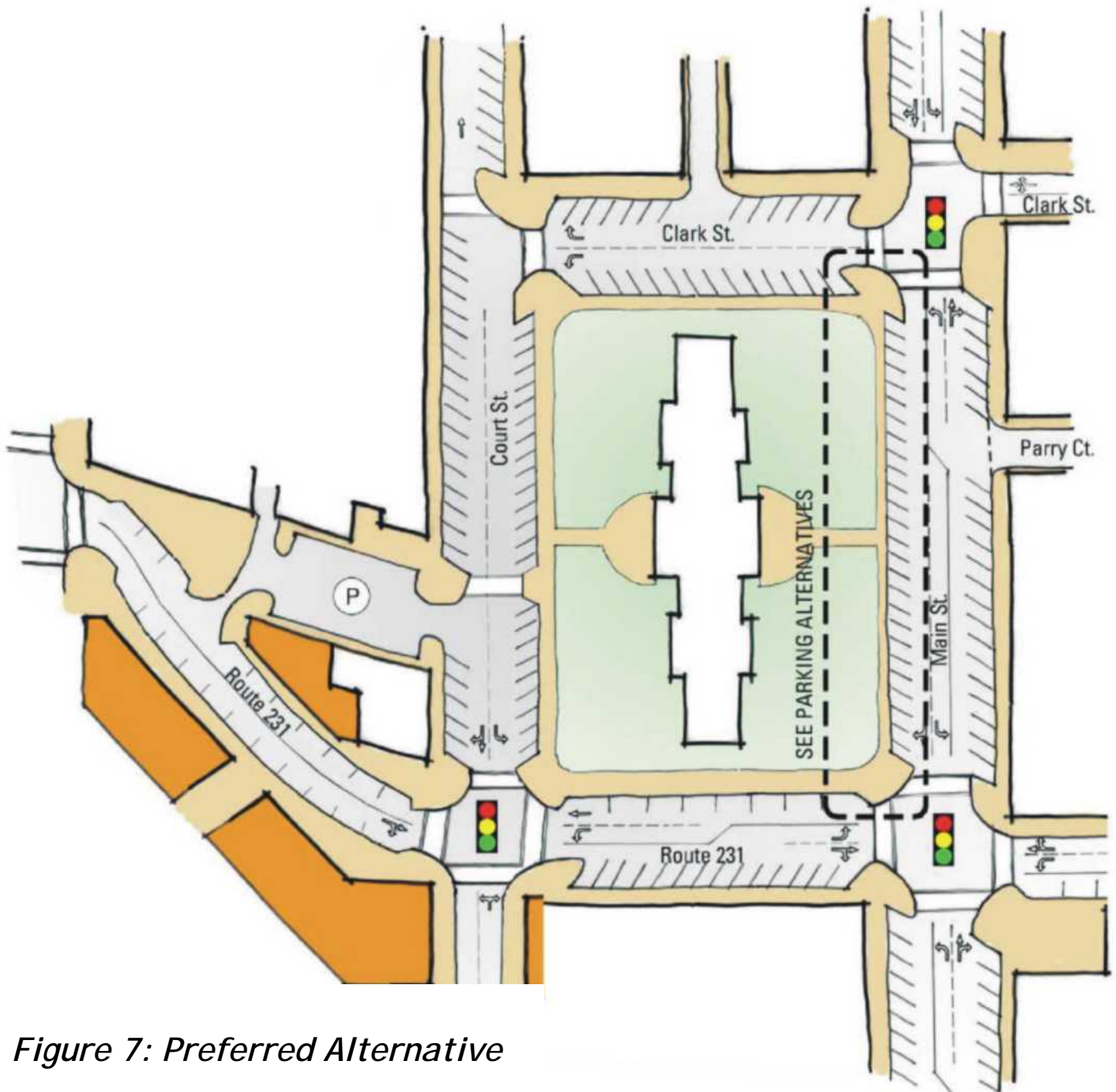
*Example of front yard landscaping of a parking lot*

**Off-Street Parking Lots:** Based on the parking occupancy study, parking supply meets current demands. It is the location and accessibility to parking that causes capacity issues for spaces around the Square. New development and redevelopment opportunities may affect this condition but new parking can be accommodated on-site at that time. Thus, it is not likely parking demands will reach an extreme level to justify the extensive cost and capital improvements necessary for a parking structure.

The City should, however, monitor parking demands on a regular basis and as new developments are approved. If conditions dramatically change and a parking structure is warranted, an existing City parking lot should be designated as the site, such as where the re-alignment would occur. The design and materials of the structure should reflect Downtown's historic character. In addition, retail uses should be integrated into the first floor to maximize development potential and blend with the businesses.

Improvements to existing public lots to improve their desirability, use, and to maximize potential for additional parking should be a focus. This will likely include re-striping, landscaping and other enhancements that are described in more detail in Chapter 3: Urban Design Plan. The priority for improving existing lots should be near popular Downtown destinations such as near the library on Court Street and near restaurants along Main Street (Route 55).

With the proposed Joliet Street (Route 231) re-alignment, a new off-street parking lot opportunity is created on the former Joliet Street (Route 231). The concept plan accommodates an additional small parking lot that could potentially offer 20-25 new off-street parking spaces near existing businesses and the library.

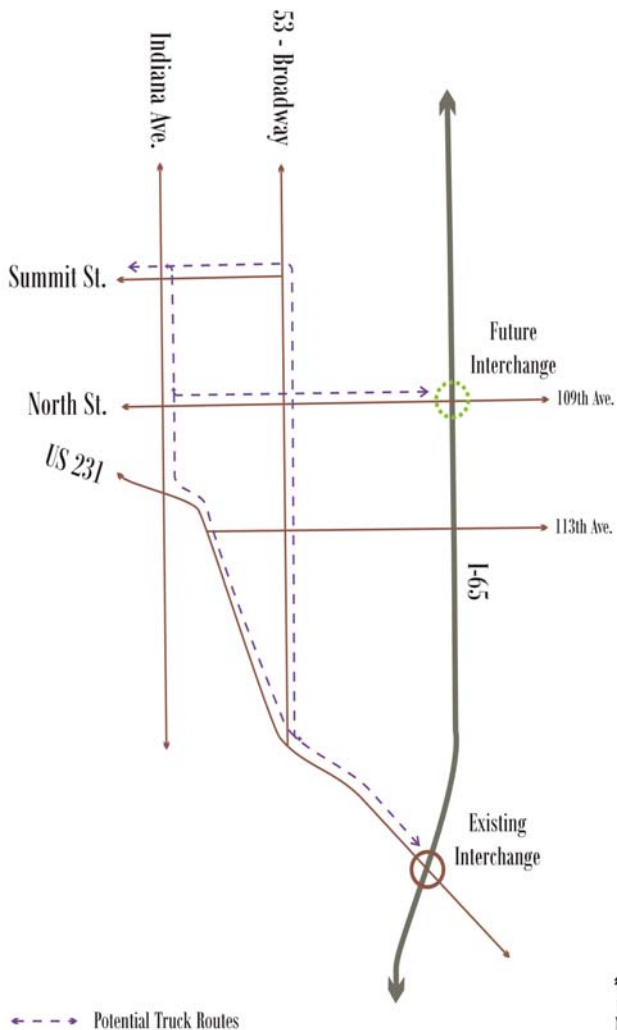


*Figure 7: Preferred Alternative*



## General Circulation and Parking Recommendations

While a preferred circulation and parking alternative has been established, there are other variables that need to be researched and considered as part of the implementation process. Many of these items are part of Chapter 3: Urban Design Plan. There are, however, a few elements related specifically to circulation and parking that are described below.



**Figure 8: Potential Truck Routes**

**Truck Routes:** Truck traffic through the Downtown continues to be an issue because of impacts to land uses, the pedestrian environment and the quality of the roads. With the conversion of one-way to two-way circulation along Joliet Street (Route 231) and Main Street (Route 55), there will be less truck traffic traveling around the Square onto Clark Street and Court Street. Reducing truck traffic on Court Street and Clark Street will alleviate impacts to businesses on those sides of the Square and allows the City to conduct significant improvements to the pedestrian environment in that area. Specifically, with the reduced amount of truck traffic, the street width can be reduced allowing for wider sidewalks and safer pedestrian crossings.

There is some concern that a smoother route through Downtown will only encourage more trucks. Direct contact with trucking companies has confirmed that most trucks traveling through the Square have a destination in Crown Point or the Crown Point area and they are not trying to avoid the Frank Borman freeway. In fact, attempts are made to avoid traveling through Downtown Crown Point, when possible. This further confirms that it is not likely that the re-alignment will generate more truck traffic through Downtown.

A reduction in the number of through-trucks in Downtown altogether would be a benefit. Therefore, the City should research other options such as designating an alternate truck route. In order to do this, however, a separate, more detailed impact study with INDOT is needed.

Potential truck routes that were suggested for further study include Broadway, Indiana Avenue, North Street (turns into 109<sup>th</sup> Street), and Summit Street (See Figure 8). In addition, if the planned



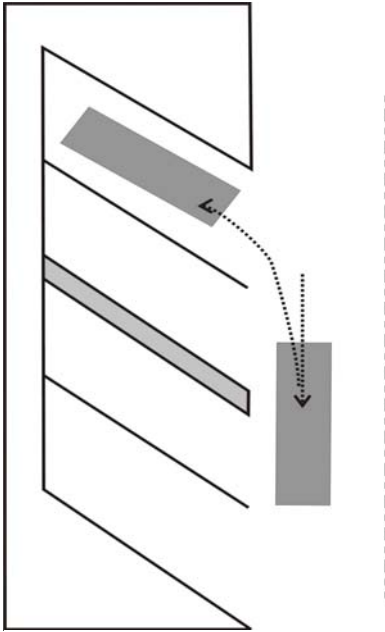


interchange at 109<sup>th</sup> Street and I-65 is completed, new opportunities may become available. Any such study should consider factors such as the condition of the road and impacts to homes, parks, schools, and other community facilities along the route.

**Reverse Angled Parking:** Many accidents recorded by the City Police Department related to cars maneuvering in and out of on-street parking spaces, especially angled spaces. While the current angled parking spaces are easier for drivers to enter than parallel parking, there are still conflicts because a driver exiting a parking space has a difficult time seeing on-coming traffic because of the awkward angle and blocked views from adjacent parked vehicles.



To partially address this situation, reverse angled parking around the Square should be considered. Reverse angled parking is a relatively new parking concept, but is gradually being applied quite successfully in downtowns around the nation. The spaces are angled in the opposite direction (see Figure 9). The entrance maneuver is quite similar to parallel parking because a driver pulls past the space, signals to vehicles behind, and backs into the space once traffic is clear. This leaves the front of the vehicle facing the travel lanes and allows drivers to simply exit the parking space face forward into the travel lanes without reversing.



*Figure 9: Reverse Angled Parking*

The reversed order provides a safer environment because drivers are able to see on-coming traffic easier (and much sooner) when exiting their parking stalls as compared to standard angled parking. While it is more difficult to enter the parking space than the current angled spaces, exiting the stall is safer and more convenient because you don't have to pull out very far to see the oncoming traffic. In addition, loading packages is safer because people can stand on the sidewalk while loading, not in the street.

Cities such as Seattle, Washington; Washington DC; Columbus, Ohio; and Vancouver, Washington have successfully used reverse angled parking in different areas of their city and reported a decrease in the number of parking related accidents since it was installed. Based on their success, smaller communities have also used this technique such as Marquette and Allen Park in Michigan.

If there is support in Crown Point and by INDOT, it would be beneficial for the City to first conduct a trial block for observation lasting a minimum of six months. Main Street (Route 55), south of the Square is a logical location for the trial block. Additionally, since the concept will be unfamiliar, instructional signage to educate drivers is recommended along with special treatment of the parking stall striping that will help guide drivers into their



space more easily. Some communities have found the parking space needs to be a bit wider than a conventional space, or each group of three spaces separated by a wide stripe to make it easier to back in. There is a transition period for motorists to become accustomed to this maneuver but it is not very different from the backing maneuver associated with parallel parking.

**Parking Enforcement and Education:** From the beginning of the study, it was consistently stated by participants that “there is not enough parking in Downtown.” The parking study conducted confirmed that people’s perception was accurate around the Square however, it revealed there is very low turnover at parking spaces that should be dedicated for short term parking for customers. There were many spaces occupied for hours at a time which generally indicates employees are using the most convenient parking spaces.

The perception of a parking problem can be significantly improved if business operators ensure employees use long term parking areas such as off-street lots on the edge of Downtown. The most effective way to begin resolving the issue is with education of employers and to hold employers accountable. In addition, changes to the on-street parking time limits may be necessary. For example, if parking was prohibited on the Square until typical store opening hours, employees that must arrive before opening hours would be forced to park elsewhere.

Finally, additional parking restriction signs, increased parking enforcement and stiffer penalties can achieve a healthy turnover rate of these important parking spaces so they are available for customers.

**Traffic Enforcement:** Improved signage and striping will minimize unintentional traffic violations. However, throughout the implementation phases, strict enforcement and stiff penalties for illegal traffic maneuvers such as illegal left turns, illegal lane changes, and high speeds will be essential. Consistent enforcement will have a chain reaction of improved compliance as motorists who commonly travel through Downtown adapt to the changes and requirements.